

Bristol Bay Watershed Assessment Preliminary Questions



Iliamna Village Council

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I attended the meeting on behalf of the
Iliamna Village Council August 9th and 10th
2011 with an open mind about this meeting
but left more confused and thought EPA was
contradicting themselves of the purpose of
the advisory team on the BBA assessment of
the 404(c) Clean Water Act.

Comments/Questions on EPA's Bristol Bay Assessment (BBA) and Conceptual Diagrams

Intergovernmental Technical Team Advisory Meeting August 9-10, 2011

General Comments:

- The overall scope of the BBA is not well-defined while at the same time, focuses on pre-determined specific adverse impacts. Since the assessment is based on hypothetical scenarios and associated assumptions, any potential adverse impacts identified would be associated with the hypothetical scenario and dependent upon the *likelihood* of such impacts occurring. Nowhere in the assessment does EPA discuss how it will address the likelihood or probability of the pathways occurring. Without including a methodology to assess the likelihood of range of impacts the assessment does not represent a sound scientific approach and borders on pure conjecture. How is EPA going to address this?
- EPA's presentation of what is the focus of the BBA seems contradictory, and is confusing at best. EPA was requested by a select group to initiate an advanced 404(c) action against the Pebble Mine project; however a proposed project description has not been defined. EPA's February 2011 'Outline for the Development of Bristol Bay's Watershed Assessment' suggests that it will investigate "existing and potential risks to Bristol Bay's salmon fishery." And yet, 100% of the focus seems to be on the Pebble mine and does not provide the basis or assumptions utilized to select the development scenarios. Why is this? Why are other potential risks to the watershed and the fishery associated with current or future development not being further evaluated?
- The assessment does indicate that a main question to address is whether there are technologies or practices to mitigate potential impacts. However, to date, EPA has not provided the approach or methods that will be used to assess modern mining engineering practices and standards, and their sufficiency for protecting water and fisheries resources in the Bristol Bay region. Why is this? Furthermore, Any wide-scale mining project would address this issue as part of the project description. Thus, this raises another concern as to why EPA would initiate the advanced 404(c) process before all available information is available to adequately address potential impacts.
- The EPA suggests that it will be studying the entirety of the Kvichak and Nushagak drainages, an area encompassing some 24,000 square miles of lands owned by the State of Alaska, Alaska Natives and the federal government, to determine if it is worthy of "special protection." This amounts to land use

planning on a huge scale across lands owned principally by parties other than the federal government? How can this be justified? Are you aware that federal and state parks, wildlife preserves and other land designations already prohibit development on some 70% of lands in southwest Alaska? How can the EPA even consider adding a blanket impediment to development on another 24,000 square miles of land in our region?

- All proposed and permitted mining projects require evaluation of mitigation measures and plans to minimize potential risks inherent in the mining life-cycle. These types of measures and plans particularly address risks related to accidents and failures. However, the assessment does not appear to take into account that a large-scale mining project would include such measures and plans as part of the evaluation of impacts. Please explain why these required risk mitigation measures are not included?
- It is not credible for the EPA to say it knows enough about the Pebble Project today to assess its effects on water and fisheries resources in Bristol Bay. This project has not yet been designed or proposed. We don't know whether it will be an open-pit or underground mine. We don't know how much ore will be mined, at what rate and over how many years. We don't know where tailings will be stored or the design of the proposed tailings facility. We don't yet know what the process plant will look like and what reagents will be used. We don't know how much water will be used. We don't know how much water will be discharged, where, when and of what quality. We don't yet know the quality of process water to be stored in the tailings pond. We don't yet know what seepage control technologies will be used. There are literally thousands of like questions for which answers are simply not known, and yet EPA feels it has all of the information it requires to assess effects of the Pebble mine. How is this so?
- It is not credible for the EPA or any other party to undertake a scientific assessment of potential effects of the proposed Pebble mine on water and fisheries resources in Bristol Bay in the absence of:
 1. a detailed project description that fully describes all project elements, operating protocols, environmental safeguards, and mitigation and compensation measures;
 2. an exhaustive and comprehensive inventory of existing environmental and socioeconomic conditions in the project area; and,
 3. a comprehensive environmental and social impact assessment undertaken to international standards.

None of these critical inputs to your study program exist today, and yet the EPA seems determined to reach conclusions on the yet-to-be proposed Pebble Project's effects on Bristol Bay water and fisheries resources. From our perspective, these glaring omissions call into question the EPA's credibility as an organization committed to scientific inquiry and fact-based decision making, as well as its objectivity.

- To the best of our knowledge, the EPA will be a full participant in the permitting process, governed by the National Environmental Policy Act, under which the proposed Pebble mine will be reviewed by federal and state regulatory agencies in the future. At that time, all of the components identified above (a project description, a comprehensive environmental baseline study and an environmental and social impact study) will be available to facilitate an objective, comprehensive and scientific assessment of the proposed Pebble mine and its potential effects. Why does the EPA not wait for the federal and state permitting process under NEPA before it attempts to assess the potential effects of the Pebble mine on local water and fisheries resources, and determine if existing safeguards and protections are sufficient? Why is the EPA committed to concluding its process *before* the facts are known?

Comments on Conceptual Diagrams

Most screening level or predictive risk assessments usually begin with an approach or model that outlines the process for evaluation, not predetermine the results. From a scientific perspective, the framework should seek to address the data needs, testing and models to be used, impact criteria, measurement endpoints, and risk characterization methods. The diagrams present a flow process of expected negative impacts thereby already presenting an assumed outcome, rather than a method to evaluate potential impacts - either adverse or beneficial.

The diagrams identify "high priority" pathways without a clear and transparent presentation of how the selected pathways were determined to be "high priority."

In order to identify high priority risk scenarios, a risk matrix is usually used to assess potential impacts (consequences) and probability (frequency of occurrence). Definitions are needed for what are considered low vs. high impacts and frequencies (e.g. rare to probable) to evaluate where hypothetical scenarios would fall in the matrix. In other words, which scenarios are identified as low, medium or high priority based on the definitions used? Can EPA provide more information on what definitions were used and how the high priority pathways were identified? Without this information, it is difficult to provide meaningful review of the high priority.

Closing

I believe the EPA could undertake a study process that would serve the residents of Bristol Bay and Alaska well in preparing for the NEPA permitting process for Pebble if it followed its own 'Outline for the Development of Bristol Bay's Watershed Assessment'. That is, your study could certainly assess the health and characteristics of the Bristol Bay fisheries. It could assess the types of issues and risks that large-scale mine development may pose for these resources at a macro-level to ensure that local residents understand the major issues and risks, and have the information they need to assess whether or not Pebble has adequately addressed these issues and risks through their project design and mitigation plans. And it could assess the sufficiency of modern mining engineering

standards and practices to protect downstream water quality and fisheries based on experiences here in Alaska and around the world.

If the EPA Bristol Bay Watershed Assessment answered those questions, as was originally intended when the study was announced back in February, I believe it would be making a valuable contribution to the public dialogue about Pebble. By choosing to define the Pebble Project and all of its environmental effects before the key inputs and scientific data required to make such an assessment are known, the EPA will be doing just the opposite –further politicizing the public dialogue about Pebble. To me this is inexcusable, and I'd encourage you in the strongest possible terms to return to your original mandate for the Bristol Bay Watershed Study.

We need clear, defensible and objective science to help guide this process and allow the people of Bristol Bay to make a good decision about the Pebble Project and our economic future – for the benefit of our children, our culture and our communities. The EPA should be helping foster a more rational and objective dialogue in our region, rather than fueling the political fires that are already burning.